OVER-THE-CABLE UPDATER FOR WINDOWS PHONES README

Over-the-cable updater for Windows phones application summary

The Over-the-cable updater for Windows phones is an Over-the-cable (OTC) update solution built to help Microsoft enterprise customers update their devices to the latest version of Windows 10 Mobile (Windows 10 Update History) without requiring *devices* to connect to an update endpoint such as Microsoft Update (MU), Windows Update (WU), or a Windows Server Update Services (WSUS) server to scan or download updates. The tool is an application that can be run by double-clicking or via the command line. Update payloads are downloaded to the PC and are portable, meaning the payloads can be copied to other PCs for later use. However, all PCs running the OTC updater must be able to connect to an update endpoint to download payloads.

Device Requirements

- Devices must be able to connect to a PC via USB. For example, if the device has disabled USB connectivity through Assigned Access or a Windows 10 Mobile policy setting, it is not possible to update the device using the Over-the-cable updater.
- If a device has a PIN lock, it must be unlocked before using the Over-the-cable updater.
- Devices ***must not have*** internet connectivity - No active SIM, CDMA network or Wi-Fi is needed. Put devices in Airplane Mode prior to using the tool.
- Devices need to have a retail version of Windows Phone 8.1 or Windows 10 Mobile.
    - If the device is part of the Windows Insider Program, then remove the device from the program by flashing the device back to a retail version of Windows Phone 8.1 or Windows 10 Mobile using the Windows Device Recovery Tool.
- Devices must not have an active update session already in progress. To check the state, look at Settings->Phone Update. If the device has an update in progress, put the device in Airplane Mode and wait for the update to complete.
- Once a device has been flashed (e.g. via WDRT), the device will be offered one update and you will be required to complete the Out of Box Experience (OOBE) before the tool can offer subsequent updates.
- The tool cannot update phones on a device that has a battery level less than 40%. This is true for OTA updates as well.

PC Requirements

- A PC running a supported Windows client operating system with the latest service pack installed. Please see the following article for more details https://support.microsoft.com/en-us/help/13853/windows-lifecycle-fact-sheet.
    - The PC must have a minimum of .Net 4.0 installed. https://www.microsoft.com/net/download/framework
- The PC running the tool ***must have*** network connectivity to the update endpoint. Please see the following KBs for more information:
    - https://support.microsoft.com/en-us/kb/900935
    - https://technet.microsoft.com/en-us/library/bb693717.aspx

Over-the-cable updater files

When you run the OtcUpdaterZip.exe it will unzip these files:

- CabApi.dll
- otcupdater.exe
- UpdateDLL.dll
- Microsoft.Tools.DeviceUpdate.EvaluationUtils.dll
- Microsoft.Tools.DeviceUpdate.DeviceUtils.dll
- CabApiWrapper.dll
- PkgCommonManaged.dll
- ToolsCommon.dll
- EULA OTC Updater Servicing Release.docx

- OTC Updater ReadMe Final.docx

Over-the-cable updater for Windows phones Usage

```
OTCUpdater.exe /help

Updates your connected mobile device(s) to the latest supported release of
Windows.

<no args> Updates devices as they are connected

/batch  Batch mode – updates all currently connected devices and exits

/log    Collects and saves the device logs

/help   Displays this message
```

Over-the-cable updater for Windows optional override functionality.
By setting the following environment variables prior to running the tool, added functionality is provided. These environment variables must be set in the same command window session from which the tool is executed.

1. Use to pull an update from a WSUS server (rather than MU) as the update endpoint. This is only valid up to RS2 RTM of Windows 10 Mobile. (WSUS does not support updates after RS2 RTM of Windows 10 Mobile)
    a. set OTC_MUV6_URL= (e.g. http(s)://<machine>:<port#> for the WSUS server)
    b. An entry for “DeviceUpdateAgent” in the “Unassigned Computers” node in the WSUS Update Services console.
2. By default, the update packages are stored in the “Packages” subfolder of the folder in which the OTC Updater tool is run. For instance, if the tool is run in the “C:\OTC” folder, the update packages are stored in the “C:\OTC\Packages” subfolder. Use to specify the parent folder; the “Packages” subfolder will still be created.
    a. set OTC_PACKAGES_PATH= (e.g. “C:\OTC”)
3. Use to pull an update from the update endpoint but defer both pushing the update to the device and starting the device update process.
    a. set OTC_SKIP_PUSHUPDATES= <anything> (e.g. “yes”)
4. Use an existing “Packages” subfolder which contains previously downloaded updates for the same device type and skip communication with the update endpoint. The tool will pull the updates from the “Packages” subfolder, push to the device and start the update. If you have used the same folder for multiple updates, the last update will be used. It is recommended that different “Packages” parent folders are defined for different device types and updates.
    a. set OTC_USE_PRIVATE_PACKAGES= <anything> (e.g. “yes”)

Over-the-cable updater for Windows phones Process Summary
Please note: The Over-the-cable updater can simultaneously update multiple devices. However, the number of simultaneously connected devices that each PC will be able to support will vary.

1. The Over-the-cable updater for Windows phones application pulls device update logs from all connected devices.
2. The Over-the-cable updater performs a scan using device update log information over the PC's connection to the update endpoint.
3. If there is an update available for the connected device, the Over-the-cable updater for Windows phones application downloads the same update payload from the update endpoint as an OTA update.

4. Once the update payload has been downloaded to the PC, it is copied to the device and the tool notifies the user that an update has started, and the device can be disconnected.
5. The device will automatically reboot to complete the update as it would during an OTA update.
6. The app runs continuously, unless launched from the command line using the /batch argument and can automatically detect that a new device is connected and begin a new update session. This also means that if a device has multiple updates available, it can remain tethered until all updates are complete.

Over-the-cable updater for Windows phones FAQs

1. Can the tool be run completely offline?
   No. The PC running the tool ***must have*** connectivity to the update endpoint. Please see the following KBs for more information:
   - https://support.microsoft.com/en-us/kb/900935
   - https://technet.microsoft.com/en-us/library/bb693717.aspx
2. Does the update payload need to be downloaded from the update endpoint each time a device is updated?
   No. The update payload is downloaded to the "Packages" subfolder. The "Packages" subfolder is portable and can be copied and reused in subsequent update sessions on the same PC or another PC.
3. Can the tool be scripted?
   Yes. Use the /batch mode which will exit once the update is complete and can be used in scripted scenarios.
4. What happens if the tool says there are no updates available?
   - The Over-the-cable updater for Windows phones is using information from the device and the update endpoint to determine update eligibility. If the device is eligible for an OTA update, then it will be an eligible OTC update.
   - The device may already be updated to the latest version (Windows 10 Update History).
   - Please see the web document Update your Windows Phone for more information on getting to Windows Mobile 10.
5. What happens if the device fails to update?
   - The Over-the-cable updater for Windows phones is using the same update process as an OTA update. If the update fails using the OTC updater, use the same steps to debug the update failure as would be used to debug an OTA update.
   - Please check Settings->Phone Update on a Windows Phone 8.1 device or Settings-> Update & security-> Phone Update on a Windows 10 Mobile device, and look at the Solutions to Update Issues section of the web document Update your Windows Phone.
   - If an encountered error is not found in the Update your Windows Phone document, then logs can be collected from the device. For Enterprise customers that have a support agreement, the logs can be used when contacting Microsoft Support to work through the issue. The application includes a /log argument which will collect device update logs which can be used for diagnosing update issues in the same manner as OTA update issues are diagnosed.